

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The claims have been amended as follows:

In Claim 17, line 1, replaced "claim 15" with --claim 16--.

### *Claim Rejections - 35 USC § 103*

2. Rejections set forth previously under this section are withdrawn.

### *Response to Amendment*

3. The declaration under 37 CFR 1.132 filed 23 January 2010 is sufficient to overcome the rejection of claim 1 under 35 USC 103(a) set forth previously.

### *Allowable Subject Matter*

4. **Claims 1, 3-6, 10-17** are allowed.
5. The following is an examiner's statement of reasons for allowance:

First, the Examiner has reconsidered the Mack reference and now withdraws the rejection which relied on this reference. The reference is directed to polyolefins (not styrene), and does not appear to be use a foam or expandable material. Additionally, while Mack does provide a

heater (page 219, Fig. 4, 280 C), it is unclear that Mack can be said to provide a die plate heated from 20-100 C above the temperature of the melt at 160 to 240 C. While Fig. 4 suggests an elevated temperature in portions of the extruder, it is unclear that this corresponds to the die plate. Even if the heated portion of the die in Fig. 4 does correspond to the die plate, it is noted that the overall wall temperature remains constant or decreases (bottom portion of Fig. 4), suggesting that even though a heater is provided, the die plate is not heated to a temperature which meets the claimed temperature conditions. Additionally still, even if the principal of Mack were combined with the Biglione process, it is unclear that the claimed die plate temperature would result when a polymer different than that of Mack is used (styrene). Therefore, no reference teaches or fairly suggests a blowing agent-containing styrene polymer melt at a temperature of 160-240 C conveyed through a die plate having the claimed hole size wherein the die plate is heated to 20 to 100 C above the temperature of the blowing agent-containing styrene polymer melt.

Second, the declaration and evidence of Dr. Hahn are given some weight. See the portions of the declaration beginning at the table on page 4 through the first paragraph of page 5. The declaration generally states that the claimed die-plate temperature provides a lowered degree of shrinkage and improved surface structure by processing at the claimed die-plate temperature.

The Examiner carefully considered arguments related to the molecular weight and the Biglione, Bremner, and Zimmermann references (pages 2-7 of the 4 January 2010 response), but was not persuaded by these arguments. The Examiner has also considered the Ma reference (J. of Applied Polymer Science, Vol. 28, pages 2983-2998) which supports the Examiner's view set forth in the previous rejection that the claimed molecular weight range would have been obvious

and conventional. The Stryon 678 and Styron 685D disclosed by the Ma reference inherently have molecular weights of 229,000 and 281,000, respectively. See page 2984 of Ma and reference 8 cited therein (first paragraph under EXPERIMENTAL).

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J. Daniels/  
Primary Examiner, Art Unit 1791  
3/27/10